AMENDMENTS TO SPECIFICATION

Please amend the paragraph beginning on line 8 of page 54 as follows:

The control plasmids used in this example are shown in FIG. 2. pcDNA-NVF (or pcDNA-NKF) is a ZFP-less effector. pcV-RAN (or pcK-RAN) expresses all components except that the engineered zinc finger protein has no known DNA binding capability (FIG. 2). The zinc finger protein sequence in the pcV-RAN (or pcK-RAN) constructs is: VPGKKKQHICHIQGCGKVYGGHDTVVGHLRWHTGERPFMCTWSYCGKRTAA DEVGLHKRTHTGEKKFACPECPKRFMLVVATQLHIKTHQNKKGGS (SEQ ID NO:13), where the fingers are underlined. These control constructs were used to check the effects of the regulation domains (VP16 or KRAB), in the absence of the DNA binding domain. The pc-ZFP-cat plasmid expresses a specifically designed zinc finger protein, however the functional domain (VP16 or KRAB) was replaced with a 234 bp fragment isolated from the chloramphenicol acetyltransferase (CAT) gene in the pcDNA3.1/CAT vector (nt1442 to 1677) (Invitrogen, CA) (FIG. 2). This control plasmid was used to test whether the DNA binding domain alone has any effects on gene expression. The other controls include effectors expressing zinc finger proteins that recognize different DNA sequences and reporters containing non-specific zinc finger protein target sequences.

Please amend the paragraph beginning on line 24 of page 54 as follows:

The following example demonstrates the effect of a designed zinc finger protein, which activates the luciferase reporter gene in 293 cells. The targeted sequence, GGGGTTGAG, is named M6-1 892S and is in the promoter region of the human VEGF gene. The zinc finger protein recognizing this 9-bp DNA sequence was designed and assembled as described herein and in U.S. ~~Ser. No. 09/229,037~~ Patent No. 6,534,261. The DNA sequence (SEQ ID NO:14) and the amino acid sequence (SEQ ID NO:15) of the zinc finger protein are shown below.

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   KpnI
5'GGTACCGGGCAAGAAGAAGCAGCACATCTGCCACATCCAGGGCTGTGGTAAAGTT
    V  P  G  K  K  K  Q  H  I  C  H  I  Q  G  C  G  K  V
TACGGCCGCTCCGACAACCTGACCCGCCACCTGCGCTGGCACACCGGCGAGAGGCCT
 Y  G  R  S  D  N  L  T  R  H  L  R  W  H  T  G  E  R  P
       (Finger 1: GAG)
TTCATGTGTACATGGTCCTACTGTGGTAAACGCTTCACCAACCGCGACACCCTGGCC
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 F  M  C  T  W  S  Y  C  G  K  R  F  T  N  R  D  T  L  A
                                          (Finger 2: GTT)
CGCCACAAGCGTACCCACACCGGTGAGAAGAAATTTGCTTGTCCGGAATGTCCGAAG
 R  H  K  R  T  H  T  G  E  K  K  F  A  C  P  E  C  P  K
CGCTTCATGCGCTCCGACCACCTGTCCAAGCACATCAAGACCCACCAGAACAAGAAG
 R  F  M  R  S  D  H  L  S  K  H  I  K  T  H  Q  N  K  K
          (Finger 3: GGG)
GGTGGATCC-3'
 G  G  S
    BamHI
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Please amend the paragraph beginning on line 18 of page 56 as follows:

The pGLP-native reporter was constructed by replacing the SV40 promoter in pGL3-promoter with a DNA fragment containing the promoter and flanking sequences of the targeted gene (FIG. 3). In this example, the native reporter construct of the human VEGF gene was generated by PCR-amplifying a 3319-bp fragment from the human genomic DNA. This fragment contains the VEGF promoter and its flanking regions. The VEGF ATG codon was fused to the luciferase coding region. Nest-PCR is performed for the amplification. The external primers were hVEGFU1 (5'-GAATTCTGTGCCCTCACTCCCCTG (SEQ ID NO:16); nt 1 to 25 based on GenBank sequence M63971) and VEGFD2 (5'-ACCGCTTACCTTGGCATGGTGGAGG (SEQ ID NO:17); nt 3475 to 3451). The internal primer pair are hVEBFU2 (5'-ACACACCTTGCTGGGTACCACCATG (SEQ ID NO:18); nt 71 to 95, KpnI site underlined)) and VEGFD1 (5'-GCAGAAAGTcCATGGTTTCGGAGGCC (SEQ ID NO:19); nt 3413 to 3388, a T to C substitution is made to generate the underlined NcoI site). The nested PCR product was digested with KpnI and NcoI and ligated with the KpnI-NcoI vector fragment of the pGL3-promoter plasmid (FIG. 3). The human VEGF native reporter plasmid was named pGLPVFH.

Please amend the paragraph beginning on line 1 of page 57 as follows:

A similar strategy was used to amplify a 2070-bp fragment from the mouse genomic DNA. The external primers were mVEGFU2 (5'-TGTTTAGAAGATGAACCGTAAGCCT (SEQ ID NO:20); nt 1 to 25 based on GenBank sequence U41383) and VEGFD2 (5'-ACCGCTTACCTTGGCATGGTGGAGG (SEQ ID NO:21); nt 3475 to 3451 based on M63971). The internal primers were mVEGF (5'-GCCCCCATTGGtACCCTGGCTTCAGTTCCCTGGCAACA (SEQ ID NO:22); nt

155 to 192; a C to T replacement is made to generate the underlined KpnI site) and VEGFD (5'-GCAGAAAGTcCATGGTTTCGGAGGCC (SEQ ID NO:23); nt 3413 to 3388 based on M63971; a T to C substitution is made to generate the underlined NcoI site). VEGFD2 and VEGFD1 primers were used to amplify both human and mouse genomic DNA since the sequences are highly homologous at that region (Shima et al. J. Biol. Chem. 271:3877 (1996)). The murine VEGF native reporter plasmid was called pGLPmVF.